SIMPOSIO CEFALÓPODOS DE LAS AMÉRICAS/CEPHALOPODS OF THE AMERICAS-PONENCIA/ORAL PRESENTATION
ECOLOGÍA TRÓFICA

## ASSESSING THE FEEDING ECOLOGY OF THREE SYMPATRIC SQUIDS *ILLEX ARGENTINUS*, *DORYTEUTHIS GAHI* AND *ONYKIA INGENS* OFF THE PATAGONIAN BY COMBINING STOMACH CONTENT AND STABLE ISOTOPIC ANALYSIS

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The Ommastrephidae *Illex argentinus*, the Loliginidae *Doryteuthis gahi* and the Onychoteuthidae *Onikya ingens* are squid species coexisting in the south part of the Patagonian Shelf, interacting for similar feeding resources. In the present study, we analyzed the feeding ecology, trophic position and trophic relationships of these three species by combining stomach content and stable isotopic approximations. In particular, stomach content and isotopic analysis were carried out on 20 *D. gahi*, 20 *I. argentinus* and 21 *O. ingens* collected from May 6$^{th}$ and 8$^{th}$ 2013 at depths between 147 and 220 m. The results indicated that the feeding habits of small and larger squids were different in the three species. The two main prey species for small *D. gahi* individuals were the euphausid *Euphausia* sp. and the amphipod *Eutemisto gaudichaudi*, and the main prey for larger *D. gahi* individuals were a fish and the Munididae *Munida subrugosa*. The main prey group of small *I. argentinus* individuals was the amphipod *E. gaudichaudi* and the myctophid fish, and the main prey for larger size *I. argentinus* individuals were the paralepididae *Arctozenus risso* and the Notothenidae *Patagonotothen ramsayi*, secondly by the squid group. Small *O. ingens* individuals fed on *Micromesistius australis* and *Notophysis marginata* while larger *O. ingens* individuals fed on *Lampanyctus australis* and *Notoscopelus* sp. *D. gahi* showed higher $\delta^{15}N$ values than the other two species and small and larger *D. gahi* individuals showed similar isotopic values. The $\delta^{15}N$ values of *I. argentinus* and *O. ingens* were higher for larger individuals. Finally, *D. gahi* differed in its $\delta^{13}C$ values from *I. argentinus* and *O. ingens* and the less depleted $\delta^{13}C$ values were found in the larger in *D. gahi* individuals. The results indicate that the three squid species preyed on organisms with similar trophic position, but due to their voracity and their active predation on similar trophic resources, small size individuals segregate their trophic niche from the larger ones. It is important to note that the $\delta^{13}C$ values revealed that larger *D. gahi* individuals had a different distribution in the water column, which probably is a response of the reproductive activity of mature squid near to the surface water.